

**Estimated Emission Reductions for The Knoxville EAC 2007 - Revised by Knox Co APC 11/21/03 & UT 11/22/03**

**Knoxville EAC - Parameters**

	71330	71330	71330	105823	105823	44294	44294	44294	382032	382032	382032	39086	39086	71170	71170	17808	17808	17808	731543												
2000 Population	7101276	2701276	2701276	3181835	3181835	2842272	2842272	2842272	15678665	15678665	15678665	2422614	2422614	3174873	3174873	386642	386642	386642	30388177												
2007 Diesel DVMT	127728	127728	127728	163240	163240	131443	131443	131443	1102160	1102160	1102160	111584	111584	182793	182793	26012	26012	26012	1844960												
2007 Arterial DVMT	98013	98013	98013	144674	144674	144674	75397	75397	360765	360765	60937	60937	153749	153749	24959	24959	918494														
Truck Parking Spaces	50	50	50	0	0	695	695	695	1223	1223	1223	524	524	106	106	0	0	2598													
Control Measure by Source Category	Anderson, TN				Blount, TN				Jefferson, TN				Knox, TN				Loudon, TN				Sevier, TN				Union, TN				Totals	Totals	Totals
	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD	NOx TPD	VOC TPD	CO TPD							
<b>Area Sources</b>																															
Open Burning Ban -resid. Garbage2A.	0.01	0.02	0.18	0.02	0.02	0.26	0.01	0.01	0.11	0.00	0.00	0.00	0.01	0.01	0.10	0.01	0.02	0.18	0.00	0.00	0.04	0.06	0.07	0.9							
Open Burning Ban -yard waste2B.	0.00	0.02	0.10	0.00	0.03	0.15	0.00	0.01	0.06	0.00	0.00	0.00	0.01	0.05	0.00	0.02	0.10	0.00	0.00	0.02	0.09	0.05									
Open Burning Ban - Land clearing2C.	0.18	0.69	4.70	0.26	1.03	4.80	0.11	0.43	3.20	0.96	3.71	21.50	0.10	0.38	1.90	0.18	0.69	3.20	0.04	0.17	1.10	1.83	7.10	40.4							
Lower gas RVP (from 9 to 7.8)	0	0.35	2.13	0	0.43	2.41	0	0.34	2.37	0	1.99	12.4	0	0.29	2.02	0	0.41	2.47	0	0.05	0.3	3.86	24.1								
Stage I Controls at Gas Stations.	0	0.54	0	0	0.64	0	0	0.57	0	0	3.14	0	0	0.48	0	0	0.63	0	0	0.08	0	0.00	6.08	0.0							
Stage II Controls at Gas Stations Not Implemented	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.0							
Ozone Action Day (Reduce VMT 1%)	0.03	0.04	0.39	0.03	0.04	0.46	0.03	0.04	0.41	0.16	0.20	2.28	0.02	0.03	0.35	0.03	0.04	0.46	0.00	0.01	0.06	0.30	0.40	4.4							
<b>Nonroad Mobile</b>																															
Construction Equipment (14.3 % New).	0.014	0.002	0.006	0.027	0.003	0.011	0.019	0.002	0.008	0.140	0.017	0.063	0.007	0.001	0.003	0.033	0.004	0.015	0.002	0.000	0.000	0.24	0.03	0.1							
New airport vehicles.18. Not Implemented	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.0							
<b>Onroad Mobile</b>																															
Inspection & Maintenance OBDII and Idle I/M.	0.4	0.7	8.9	0.5	0.8	10.4	0.4	0.8	9.3	2.3	4.1	51.5	0.4	0.6	8.0	0.5	0.8	10.4	0.1	0.1	1.3	4.43	8.03	99.8							
Lower interstate truck speeds by 10 mph.	0.4	0.0	0	0	0	0	0.5	0.0	0	3.9	0.0	0	0.4	0.0	0	0.6	0.0	0	0	0	0	5.82	-0.02	0.0							
Truck stop electrification, 30% occupancy	0.0123	0.0012	0.0105	0	0	0.171	0.0162	0.144	0.3	0.0285	0.2532	0.129	0.0123	0.1086	0.0261	0.0024	0.0219	0	0	0	0	0.64	0.06	0.5							
Cetane Additives to Diesel Fuel (3% - NOx)	0.14	0	0	0.18	0	0	0.14	0	0	1.19	0	0	0.12	0	0	0.20	0	0	0.03	0	0	2.00	0.00	0.0							
Anti-idling Legis. (1% veh idle 5 min/day)	0.0009	0.0009	0.0063	0.0014	0.0014	0.0093	0.0006	0.0006	0.0039	0.0050	0.0050	0.0337	0.0005	0.0034	0.0009	0.0063	0.0002	0.0002	0.0016	0.01	0.01	0.1									
Transit (increase bus ridership 5%)	0	0	0	0	0	0	0	0	0	0.001	0.001	0.012	0	0	0	0	0	0	0	0	0.001	0.001	0.012								
Trip Reduction Programs	0	0	0	0.019	0.025	0	0	0	0	0.091	0.125	0.000	0	0	0	0	0	0	0	0	0	0.110	0.150	0.000							
Traffic Flow Improvement	0.005	0.005	0.000	0.007	0.007	0.000	0.004	0.004	0.000	0.017	0.018	0.000	0.003	0.000	0.007	0.008	0.000	0.001	0.001	0.000	0.044	0.045	0.000								
<b>Point Sources (50% NOx Reduction)</b>																															
50 Ton NOx/Year RACT Rule																															
Becromal & Chestnut Landfill	0.35	0	0			0.5	0	0													0.35	0.00	0.0								
Alcoa																					0.50	0.00	0.0								
UT, St. Marys, Tamko, TSD, & CEMEX																					1.58	0.00	0.3								
Kimberly Clarke & Trigen																					0.30	0.00	0.0								
Dan River																					0.19	0.00	0.0								
<b>Summary of Results for 2007</b>																															
Total TPD Potential Reductions	1.6	2.4	16.4	1.5	3.1	18.6	1.4	2.2	15.6	10.6	13.4	88.3	1.4	1.9	12.5	1.8	2.7	16.9	0.1	0.4	2.8	18.4	25.9	171.0							
TPD County Em. Without Controls (re:SAI)	22.7	15.7	67.5	10.4	20.3	156.9	13.9	13.5	69.7	56.8	73.5	403.8	20.1	15.8	65.1	9.0	14.3	84.5	2.7	2.6	13.5	135.6	155.8	861.0							
Percent Reduction from New Controls	7.0%	15.1%	24.3%	14.5%	15.1%	11.8%	9.8%	16.1%	22.4%	18.7%	18.2%	21.9%	7.1%	11.7%	19.2%	19.8%	18.6%	20.0%	5.2%	16.0%	20.8%	13.6%	16.6%	19.9%							
TPD Reductions by Source Category:																															
<b>Area Sources</b>	0.19	1.27	4.98	0.29	1.71	5.21	0.12	1.02	3.37	0.96	6.84	21.50	0.11	0.88	2.05	0.19	1.36	3.48	0.05	0.26	1.17	1.9	13.3	41.8							
<b>Motor Vehicles (incl. RVP &amp; O3 Act Day)</b>	1.03	1.10	11.41	0.70	1.35	13.33	1.22	1.15	12.26	7.92	6.50	66.45	1.02	0.98	10.44	1.37	1.30	13.38	0.09	0.16	1.63	13.4	12.5	128.9							
<b>Non-Road Sources</b>	0.014	0.002	0.006	0.027	0.003	0.011	0.019	0.002	0.008	0.140	0.017	0.063	0.007	0.001	0.003	0.033	0.004	0.015	0.002	0.000	0.2	0.0	0.1								
<b>Low-level Point</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0								
<b>Elev. Point</b>	0.35	0	0	0.5	0	0	0	0	0	1.58	0	0.28	0.3	0	0	0.19	0	0	0	0	0	2.9	0.0	0.3							
<b>TPD Em w/o Controls by Source Category: (from SAI)</b>																															
<b>Area Sources</b>	0.74	7.66	5.58	0.36	8.05	5.82	0.18	5.04	3.83	5.73	43.6	23.91	0.14	5.34	2.32	0.26	4.56	3.91	0.13	1.11	1.32	7.5	75.4	46.7							
<b>Motor Vehicles</b>	7.24	4.23	46.21	4.71	4.47	44.9	11.34	4.56	53.95	33.71	20.06	221.67	11.69	4.13	50.73	7.37	5.14	55.33	0.88	0.75	7.92	76.9	43.3	480.7							
<b>Non-Road Sources</b>	3.67	1.24	13.29	4.02	2.65	29.53	2.31	1.85	11.92	10.76	6.27	149.81	4.43	1.38	10.59	1.23	4.47	25.07	0.41	0.74	3.6	26.8	18.6	243.8							
<b>Low-level Point</b>	1.23	2.53	0.48	0.12	1.39	0.89	0.06	1.95	0.03	0.52	3.07	0.56	0.14	1.65	0.03	0.06	0.14	0.02	0.01	0.0	0.0	2.1	10.7	2.0							
<b>Elev. Point</b>	9.78	0.04	1.98	1.21	3.78	75.78	0.01	0.1	0	6.04	0.46	7.88	3.71	3.32	1.39	0.12	0.02	0.14	1.29	0.01	0.62	22.2	7.7	87.8							
<b>Percent Reduction from New Controls</b>																															
<b>By Source Category:</b>																															
<b>Area Sources</b>	26.2%	16.5%	89.2%	79.9%	21.3%	89.6%	66.9%	20.2%	88.1%	16.7%	15.7%	89.9%	75.9%	16.5%	88.5%	74.4%	29.8%	88.9%	37.2%	23.3%	88.6%	25.3%	17.7%	89.4%							
<b>Motor Vehicles</b>	14.2%	26.1%	24.7%	14.8%	30.1%	29.7%	10.8%	25.1%	22.7%	23.5%	32.4%	30.0%	8.7%	23.6%	20.6%	18.6%	25.3%	24.2%	10.2%	21.1%	20.5%	17.4%	28.9%	26.8%							
<b>Non-Road Sources</b>	0.4%	0.1%	0.0%	0.7%	0.1%	0.0%	0.8%	0.1%	0.1%	0.3%	0.0%	0.1%	0.1%	0.0%	0.0%	2.7%	0.1%	0.1%	0.5%	0.0%	0.0%	0.9%	0.2%	0.0%							
<b>Low-level Point</b>																															